

**REMARKS**

The Office Action mailed December 2, 2003 has been reviewed and the comments of the Patent and Trademark Office have been considered. Claims 1-20 were pending in the application, with claims 5, 6, 9, and 10 being withdrawn. Claims 1 and 17 have been amended, no claims have been cancelled or newly added. Therefore, claims 1-20 are pending in the application with claims 1-4, 7, 8, and 11-20 submitted for reconsideration.

Applicants sincerely thank the examiner for indicating that claims 7, 8, and 12-16 are allowed.

Applicants' representative sincerely thanks the examiner for the courtesy of a productive interview conducted on February 4, 2004. In the interview, claim 1 as well as the applied prior art rejection were discussed as detailed further herein.

This amendment changes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, are presented, with an appropriate defined status identifier.

In the Office Action, claims 1, 4, 11, and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent 6,308,672 to Lichti et al. (hereafter "Lichti"). Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lichti, in view of legal precedence. Claims 17 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,736,633 to Magner (hereafter "Magner") in view of Lichti. Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Magner in view Lichti as applied to claim 17 above, and further in view of legal precedence. Applicants respectfully traverse these rejections, insofar as they are applicable to the pending claims, for at least the following reasons.

Independent claim 1 has been amended to recite, *inter alia*, that the protrusion shaft is formed integrally on at least one of the vane rotor and the housing.

As discussed in the interview, the examiner agreed that the Lichti reference did not show that the protrusion shaft was formed integrally with the vane rotor 28. The examiner's interpretation of the protrusion shaft in Lichti is the piece between elements 46 and 56 in Fig. 3 of Lichti which touches the vane rotor 28 and the target wheel 46. However, as is clearly shown in Fig. 3 of Lichti, this protrusion shaft is not formed integrally with either the vane

rotor 28 or the housing 22 as required by the pending independent claim 1. Since this deficiency in Lichti is not cured by any of the other applied references, the pending independent claim 1 is patentable over the applied prior art.

This recited feature also provides significant advantages. Specifically, the arrangement such as that of Lichti (in which the protrusion shaft is not integral) is held together by the bolt 56 and this may cause a rotary shift that is attributable to the bolt 56 tightening the target wheel/plate 46.

This recited feature is also well supported by the originally filed specification. See, for example, the arrangement of the vane rotor 16 and the protrusion shaft in the originally filed Figs. 1 and 7 and the text at page 6, lines 21-22 which discloses that the vane rotor 16 has a forward end formed with the protrusion shaft 28. Therefore, no new matter is believed to be added.

The dependent claims are also in condition for allowance for at least the same reasons, as discussed above, as the independent claims on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole.

In view of the foregoing amendments and remarks, applicants believe that the application is now in condition for allowance. If there are any questions regarding the application, or if an examiner's amendment would facilitate the allowance of one or more of the claims, the examiner is invited to contact the undersigned attorney at the local telephone number below.

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicants hereby petition for any needed extension of time.

Respectfully submitted,

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